

Appl. No. : 09/979,547
Filed : November 20, 2001

REMARKS

Claim 1 has been amended by incorporating the limitations of Claims 7 and 10. Claims 7, 10 and 12-17 have been canceled without prejudice. Claims 3 and 4 have been amended to correct informalities. Claims 8 and 9 have been amended to change the dependency. Claims 18 and 19 have been added. Support for these claims can be found on page 14, lines 18-21, for example. Claims 20 and 21 have been added. Support for these claims can be found on pages 13-14, Examples 1-6 on pages 26-39, Figs. 1-4 and 6, for example. Accordingly, Claims 1-6, 8, 9, 11, 18-21 are pending in this application. The amendments do not constitute the addition of any new matter to the application. Applicant respectfully requests entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

Affirmation of Restriction Requirement

A provisional election was made without traverse to prosecute the invention of Group I, claims 1-11 on June 26, 2003. Applicant affirms this election.

Rejection of Claims 3 and 4 Under 35 U.S.C. § 112

Claims 3 and 4 have been rejected under 35 U.S.C. § 112, second paragraph, with regard to the indefinite term set forth in the Office action. Claims 3 and 4 have been amended to correct the informalities, thereby obviating the rejection. Thus, Applicant respectfully requests withdrawal of the rejection.

Rejection of Claims 1, 2, 4, 5 and 11 Under 35 U.S.C. § 102

Claims 1, 2, 4, 5 and 11 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Norio (JP A2 04-054165). Applicant respectfully traverses this rejection. Claim 1 is independent and the remaining claims are ultimately dependent thereon. The claims as amended herein could not be anticipated by Norio as explained below.

Norio teaches a fabric (undergarment) which is obtained by weaving or knitting an electrically conductive metal yarn and a hygroscopic fiber yarn so that the fiber yarn appears on one side of the fabric. A cotton yarn is disclosed as the fiber yarn, and a stainless yarn as the metal yarn.

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On the other hand, Claim 1 now recites: A reversible electromagnetic wave shielding knitted material comprising a conductive fiber yarn and an elastic fiber yarn interknitted with each other as a surface side and a natural fiber yarn as a back side. In contrast, Norio does not disclose an elastic fiber yarn which is distinguishable from the prior art. Norio fails to disclose every element of the claimed invention, and withdrawal of the rejection of Claim 1 and the remaining dependent claims under § 102 is respectfully requested.

Rejection of Claim 3 Under 35 U.S.C. § 103

Claim 3 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Norio (JP A2 04-054165).

As discussed above, Norio fails to teach an elastic fiber. Thus, Claim 3 which is dependent on Claim 1 could not be obvious over Norio. It is respectfully submitted that the rejection should be withdrawn.

Rejection of Claim 6 Under 35 U.S.C. § 103

Claim 6 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Norio (JP A2 04-054165) in view of Akopian et al. (US 5,968,854).

Akopian teaches an EMI shielding fabric comprising silver-coated nylon yarns. However, Akopian does not teach or even suggest using an elastic fiber which is distinct feature recited in Claim 1. Therefore, a combination of Norio and Akopian still could not lead to the claimed invention. It is respectfully submitted that the rejection should be withdrawn.

Rejection of Claims 7-10 Under 35 U.S.C. § 103

Claims 7-10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Norio (JP A2 04-054165) in view of Christiansen et al. (US 4,398,277). Claims 7 and 10 have been canceled and the limitations have been incorporated into Claim 1.

Norio pertains to an electromagnetic wave shielding garment and aims to provide a garment having an electromagnetic wave shielding effect, whereas Christiansen et al. discloses, as an antistatic device, a fabric and body strap having both electrically conductive and

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elastomeric properties. Since the two cited inventions differ in technical field and object, one having ordinary skill in the art would not have been motivated to combine the invention of Norio with that of Christiansen et al.

On the other hand, Claim 1 has been amended to recite that the proportion of the elastic fiber yarn is greater than 0 but not greater than 2/3 of the total amount of the conductive fiber yarn and the elastic fiber yarn interknitted with each other. This significant feature results in unexpected advantages such as a good balance between coat reduction in clothing production and excellent electromagnetic shielding capability. See page 32, lines 15-22 of the specification.

The fabric of Christiansen et al. is knitted using an electrically conductive yarn and an insulative yarn, the electrically conductive yarn having an electrically conductive fiber and an elastomeric fiber, and the insulative yarn having an insulative fiber and an elastomeric fiber (see column 4, lines 37-63).

However, Christiansen et al. neither teaches nor suggests anything about the proportion of the electrically conductive fiber and the elastomeric fiber to the total amount of fibers. Moreover, Christiansen et al. neither teaches nor suggests that when the two types of fibers are used in a specific proportion recited in Claim 1, the above unexpected advantages can be obtained. See Examples 3 and 4 and Comparative Examples 1 and 2, and Fig. 6 of the present application.

Therefore, a combination of Norio and Christiansen et al. still could not lead to the present invention. Thus, the present invention could not be obvious over the references. It is respectfully submitted that the rejection should be withdrawn.

New Claims 18 and 19

Claims 18 and 19 have been added to recite specific proportion of the electrically conductive fiber and the elastomeric fiber to the total amount of fibers. Claims 18 and 19 are dependent on Claim 1 and should be allowable at least for the reason above.

New Claims 20 and 21

Claims 20 and 21 have been added. According to Claim 20, by using the elastic fiber yarn having the specific denier at the specific ratio recited in Claim 20, and interknitting the

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elastic fiber yarn and the conductive fiber yarn having the specific denier recited in Claim 20, the spaces between the conductive fiber yarns can be most efficiently adjusted and maintained so as to give an electromagnetic wave shielding capability of at least 20 dB. The elastic fiber yarn, the specific ratio, the specific denier, and the interknitting of the two yarns are important to achieve a good shielding capacity, a reduction of the amount of conductive fiber yarns, and the prevention of skin disorder due to metal allergy (Figs. 1-6 and pages 13 and 14). Because the prior art does not teach or even suggest adjusting the spaces between conductive fiber yarns by using a certain amount of elastic fiber yarns and adjusting the denier of the elastic fiber yarn and the conductive fiber yarn interknitted, Claim 20 could not be obvious over the prior art.

Claim 21 further limits Claim 20. According to Claim 21, the material can obtain pleasant feeling without impairing the shielding capacity. Claim 21 also could not be obvious over the prior art.

CONCLUSION

In light of the Applicant's amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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